BioMap and Living Waters

Guiding Land Conservation for Biodiversity in Massachusetts

Core Habitats of Wareham

This report and associated map provide information about important sites for biodiversity conservation in your area.

This information is intended for conservation planning, and is not intended for use in state regulations.

Produced by:

Natural Heritage & Endangered Species Program
Massachusetts Division of Fisheries and Wildlife
Executive Office of Environmental Affairs
Commonwealth of Massachusetts

Produced in 2004

BioMap and Living Waters:
Guiding Land Conservation for Biodiversity in Massachusetts

Table of Contents

Introduction
- What is a Core Habitat?
- Core Habitats and Land Conservation
- In Support of Core Habitats

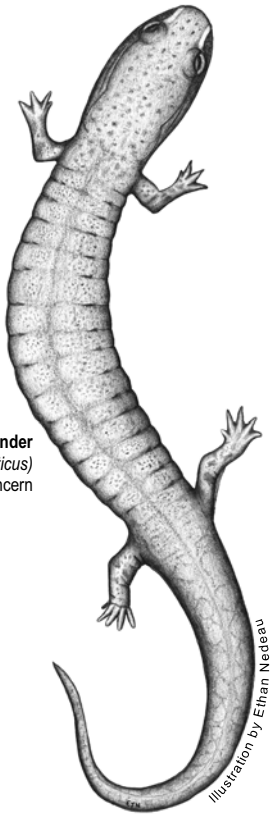
Understanding Core Habitat Species, Community, and Habitat Lists
- What's in the List?
- What does 'Status' mean?

Understanding Core Habitat Summaries

Next Steps
- Protecting Larger Core Habitats
- Additional Information

Local Core Habitat Information*
- BioMap: Species and Natural Communities
- BioMap: Core Habitat Summaries
- Living Waters: Species and Habitats
- Living Waters: Core Habitat Summaries

* Depending on the location of Core Habitats, your city or town may not have all of these sections.



Spring Salamander
(Gyrinophilus porphyriticus)
Species of Special Concern

Funding for this project was made available by the Executive Office of Environmental Affairs, contributions to the Natural Heritage & Endangered Species Fund, and through the State Wildlife Grants Program of the US Fish & Wildlife Service.

Natural Heritage & Endangered Species Program

Massachusetts Division of Fisheries and Wildlife
North Drive, Westborough, MA 01581
Tel: (508) 792-7270, Ext. 200 Fax: (508) 792-7821
http://www.nhesp.org

For more information on rare species and natural communities, please see our fact sheets online at ***www.nhesp.org***

BioMap and Living Waters:
Guiding Land Conservation for Biodiversity in Massachusetts

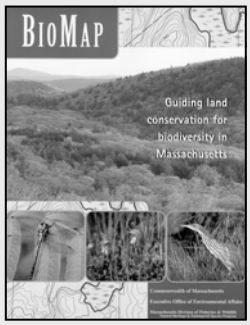
Introduction

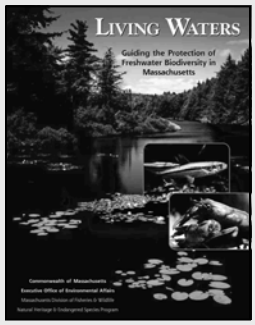
In this report, the Natural Heritage & Endangered Species Program provides you with site-specific biodiversity information for your area. Protecting our biodiversity today will help ensure the full variety of species and natural communities that comprise our native flora and fauna will persist for generatons to come.

The information in this report is the result of two statewide biodiversity conservation planning projects, ***BioMap*** and ***Living Waters***. The goal of the BioMap project, completed in 2001, was to identify and delineate the most important areas for the long-term viability of terrestrial, wetland, and estuarine elements of biodiversity in Massachusetts. The goal of the Living Waters project, completed in 2003, was to identify and delineate the rivers, streams, lakes, and ponds that are important for freshwater biodiversity in the Commonwealth. These two conservation plans are based on documented observations of rare species, natural communities, and exemplary habitats.

What is a Core Habitat?

Both BioMap and Living Waters delineate ***Core Habitats*** that identify the most critical sites for biodiversity conservation across the state. Core Habitats represent habitat for the state's most viable rare plant and animal populations and include exemplary natural communities and aquatic habitats. Core Habitats represent a wide diversity of rare species and natural communities (see Table 1), and these areas are also thought to contain virtually all of the other described species in Massachusetts. Statewide, BioMap Core Habitats encompass 1,380,000 acres of uplands and wetlands, and Living Waters identifies 429 Core Habitats in rivers, streams, lakes, and ponds.





Get your copy of the ***BioMap*** and ***Living Waters*** reports! Contact Natural Heritage at 508-792-7270, Ext. 200 or email natural.heritage@state.ma.us. Posters and detailed technical reports are also available.

Core Habitats and Land Conservation

One of the most effective ways to protect biodiversity for future generations is to protect Core Habitats from adverse human impacts through land conservation. For Living Waters Core Habitats, protection efforts should focus on the ***riparian areas***, the areas of land adjacent to water bodies. A naturally vegetated buffer that extends 330 feet (100 meters) from the water's edge helps to maintain cooler water temperature and to maintain the nutrients, energy, and natural flow of water needed by freshwater species.

In Support of Core Habitats

To further ensure the protection of Core Habitats and Massachusetts' biodiversity in the long-term, the BioMap and Living Waters projects identify two additional areas that help support Core Habitats.

In BioMap, areas shown as ***Supporting Natural Landscape*** provide buffers around the Core Habitats, connectivity between Core Habitats, sufficient space for ecosystems to function, and contiguous undeveloped habitat for common species. Supporting Natural Landscape was

Natural Heritage & Endangered Species Program

Massachusetts Division of Fisheries and Wildlife
North Drive, Westborough, MA 01581
Tel: (508) 792-7270, Ext. 200 Fax: (508) 792-7821
http://www.nhesp.org

generated using a Geographic Information Systems (GIS) model, and its exact boundaries are less important than the general areas that it identifies. Supporting Natural Landscape represents potential land protection priorities once Core Habitat protection has been addressed.

In Living Waters, ***Critical Supporting Watersheds*** highlight the immediate portion of the watershed that sustains, or possibly degrades, each freshwater Core Habitat. These areas were also identified using a GIS model. Critical Supporting Watersheds represent developed and undeveloped lands, and can be quite large. Critical Supporting Watersheds can be helpful in land-use planning, and while they are not shown on these maps, they can be viewed in the Living Waters report or downloaded from www.mass.gov/mgis.

Understanding Core Habitat Species, Community, and Habitat Lists

What's in the List?

Included in this report is a list of the species, natural communities, and/or aquatic habitats for each Core Habitat in your city or town. The lists are organized by Core Habitat number.

For the larger Core Habitats that span more than one town, the species and community lists refer to the entire Core Habitat, not just the portion that falls within your city or town. For a list of all the state-listed rare species within your city or town's boundary, whether or not they are in Core Habitat, please see the town rare species lists available at www.nhesp.org.

The list of species and communities within a Core Habitat contains only the species and natural communities that were explicitly included in a given BioMap or Living Waters Core Habitat. Other rare species or examples of other natural communities may fall within the Core Habitat, but for various reasons are not included in the list. For instance, there are a few rare species that are omitted from the list or summary because of their particular sensitivity to the threat of collection. Likewise, the content of many very small Core Habitats are not described in this report or list, often because they contain a single location of a rare plant

Table 1. The number of rare species and types of natural communities explicitly included in the BioMap and Living Waters conservation plans, relative to the total number of native species statewide.

BioMap

	Species and Verified Natural Community Types	
Biodiversity Group	**Included in BioMap**	**Total Statewide**
Vascular Plants	246	1,538
Birds	21	221 breeding species
Reptiles	11	25
Amphibians	6	21
Mammals	4	85
Moths and Butterflies	52	An estimated 2,500 to 3,000
Damselflies and Dragonflies	25	An estimated 165
Beetles	10	An estimated 2,500 to 4,000
Natural Communities	92	> 105 community types

Living Waters

	Species	
Biodiversity Group	**Included in Living Waters**	**Total Statewide**
Aquatic Vascular Plants	23	114
Fishes	11	57
Mussels	7	12
Aquatic Invertebrates	23	An estimated > 2500

species. Some Core Habitats were created for suites of common species, such as forest birds, which are particularly threatened by habitat fragmentation. In these cases, the individual common species are not listed.

What does 'Status' mean?

The Division of Fisheries and Wildlife determines a status category for each rare species listed under the Massachusetts Endangered Species Act, M.G.L. c.131A, and its implementing regulations, 321 CMR 10.00. Rare species are categorized as Endangered, Threatened, or of Special Concern according to the following:

- ***Endangered*** species are in danger of extinction throughout all or a significant portion of their range or are in danger of extirpation from Massachusetts.
- ***Threatened*** species are likely to become Endangered in Massachusetts in the foreseeable future throughout all or a significant portion of their range.
- ***Special Concern*** species have suffered a decline that could threaten the species if allowed to continue unchecked or occur in such small numbers or with such restricted distribution or specialized habitat requirements that they could easily become Threatened in Massachusetts.

In addition, the Natural Heritage & Endangered Species Program maintains an unofficial ***watch list*** of plants that are tracked due to potential conservation interest or concern, but are not regulated under the Massachusetts Endangered Species Act or other laws or regulations. Likewise, described natural communities are not regulated any laws or regulations, but they can help to identify ecologically important areas that are worthy of protection. The status of natural communities reflects the documented number and acreages of each community type in the state:

- ***Critically Imperiled*** communities typically have 5 or fewer documented sites or have very few remaining acres in the state.
- ***Imperiled*** communities typically have 6-20 sites or few remaining acres in the state.
- ***Vulnerable*** communities typically have 21-100 sites or limited acreage across the state.
- ***Secure*** communities typically have over 100 sites or abundant acreage across the state; however excellent examples are identified as Core Habitat to ensure continued protection.

Legal Protection of Biodiversity

BioMap and Living Waters present a powerful vision of what Massachusetts would look like with full protection of the land that supports most of our biodiversity. To create this vision, some populations of state-listed rare species were deemed more likely to survive over the long-term than others.

Regardless of their potential viability, all sites of state-listed species have full legal protection under the Massachusetts Endangered Species Act (M.G.L. c.131A) and its implementing regulations (321 CMR 10.00). Habitat of state-listed wildlife is also protected under the Wetlands Protection Act Regulations (310 CMR 10.37 and 10.59). The ***Massachusetts Natural Heritage Atlas*** shows **Priority Habitats**, which are used for regulation under the Massachusetts Endangered Species Act and Massachusetts Environmental Policy Act (M.G.L. c.30) and **Estimated Habitats**, which are used for regulation of rare wildlife habitat under the Wetlands Protection Act. For more information on rare species regulations, see the *Massachusetts Natural Heritage Atlas*, available from the Natural Heritage & Endangered Species Program in book and CD formats.

BioMap and Living Waters are conservation planning tools and do not, in any way, supplant the Estimated and Priority Habitat Maps which have regulatory significance. Unless and until the combined BioMap and Living Waters vision is fully realized, we must continue to protect all populations of our state-listed species and their habitats through environmental regulation.

Natural Heritage & Endangered Species Program

Massachusetts Division of Fisheries and Wildlife
North Drive, Westborough, MA 01581
Tel: (508) 792-7270, Ext. 200 Fax: (508) 792-7821
http://www.nhesp.org

Understanding Core Habitat Summaries

Following the BioMap and Living Waters Core Habitat species and community lists, there is a descriptive summary of each Core Habitat that occurs in your city or town. This summary highlights some of the outstanding characteristics of each Core Habitat, and will help you learn more about your city or town's biodiversity. You can find out more information about many of these species and natural communities by looking at specific ***fact sheets*** at www.nhesp.org.

Next Steps

BioMap and Living Waters were created in part to help cities and towns prioritize their land protection efforts. While there are many reasons to conserve land – drinking water protection, recreation, agriculture, aesthetics, and others – BioMap and Living Waters Core Habitats are especially helpful to municipalities seeking to protect the rare species, natural communities, and overall biodiversity within their boundaries. Please use this report and map along with the rare species and community fact sheets to appreciate and understand the biological treasures in your city or town.

Protecting Larger Core Habitats

Core Habitats vary considerably in size. For example, the average BioMap Core Habitat is 800 acres, but Core Habitats can range from less than 10 acres to greater than 100,000 acres. These larger areas reflect the amount of land needed by some animal species for breeding, feeding, nesting, overwintering, and long-term survival. Protecting areas of this size can be very challenging, and requires developing partnerships with neighboring towns.

Prioritizing the protection of certain areas within larger Core Habitats can be accomplished through further consultation with Natural Heritage Program biologists, and through additional field research to identify the most important areas of the Core Habitat.

Additional Information

If you have any questions about this report, or if you need help protecting land for biodiversity in your community, the Natural Heritage & Endangered Species Program staff looks forward to working with you.

Contact the Natural Heritage & Endangered Species Program:

by Phone *508-792-7270, Ext. 200*

by Fax: *508-792-7821*

by Email: *natural.heritage@state.ma.us*.

by Mail: *North Drive*
Westborough, MA 01581

The GIS datalayers of BioMap and Living Waters Core Habitats are available for download from MassGIS: www.mass.gov/mgis

Check out www.nhesp.org for information on:

- Rare species in your town
- Rare species fact sheets
- BioMap and Living Waters projects
- Natural Heritage publications, including:
  - Field guides
  - Natural Heritage Atlas, and more!

Massachusetts Division of Fisheries and Wildlife
North Drive, Westborough, MA 01581
Tel: (508) 792-7270, Ext. 200 Fax: (508) 792-7821
http://www.nhesp.org

BioMap: Species and Natural Communities

Wareham

Core Habitat BM1190

Natural Communities

Common Name	Scientific Name	Status
Coastal Plain Pondshore		Imperiled
Pitch Pine - Scrub Oak Community		Imperiled
Red Maple Swamp		Secure
Sandplain Heathland		Critically Imperiled
Scrub Oak Shrubland		Critically Imperiled

Plants

Common Name	Scientific Name	Status
Broom Crowberry	*Corema conradii*	Special Concern
Inundated Horned-Sedge	*Rhynchospora inundata*	Threatened
Long-Beaked Bald-Sedge	*Rhynchospora scirpoides*	Special Concern
New England Blazing Star	*Liatris scariosa var. novae-angliae*	Special Concern
New England Boneset	*Eupatorium leucolepis var novae-angliae*	Endangered
Plymouth Gentian	*Sabatia kennedyana*	Special Concern
Pondshore Knotweed	*Polygonum puritanorum*	Special Concern
Pondshore-dodder	*Cuscuta coryli*	Watch Listed
Redroot	*Lachnanthes caroliana*	Special Concern
Reticulate Nut-Sedge	*Scleria reticularis*	Watch Listed
Short-Beaked Bald-Sedge	*Rhynchospora nitens*	Threatened
Swamp Oats	*Sphenopholis pensylvanica*	Threatened
Terete Arrowhead	*Sagittaria teres*	Special Concern
Torrey's Beak-Sedge	*Rhynchospora torreyana*	Endangered
Walter's Sedge	*Carex striata*	Endangered
Wright's Panic-grass	*Dichanthelium wrightianum*	Special Concern

BioMap: Species and Natural Communities

Wareham

Invertebrates

Common Name	Scientific Name	Status
Attenuated Bluet	*Enallagma daeckii*	Special Concern
Barrens Buckmoth	*Hemileuca maia*	Special Concern
Barrens Daggermoth	*Acronicta albarufa*	Threatened
Blueberry Sallow	*Apharetra dentata*	----------
Buchholz's Gray	*Hypomecis buchholzaria*	Endangered
Chain Dot Geometer	*Cingilia catenaria*	Special Concern
Coastal Heathland Cutworm	*Abagrotis nefascia benjamini*	Special Concern
Coastal Plain Apamea Moth	*Apamea mixta*	Special Concern
Coastal Swamp Metarranthis Moth	*Metarranthis pilosaria*	Special Concern
Comet Darner	*Anax longipes*	Special Concern
Drunk Apamea Moth	*Apamea inebriata*	Special Concern
Frosted Elfin	*Callophrys irus*	Special Concern
Gerhard's Underwing Moth	*Catocala herodias gerhardi*	Special Concern
Hessel's Hairstreak	*Callophrys hesseli*	Special Concern
Melsheimer's Sack Bearer	*Cicinnus melsheimeri*	Threatened
New England Bluet	*Enallagma laterale*	Special Concern
Pale Green Pinion Moth	*Lithophane viridipallens*	Special Concern
Pine Barrens Bluet	*Enallagma recurvatum*	Threatened
Pine Barrens Itame	*Itame sp. 1 near inextricata*	Special Concern
Pine Barrens Zale	*Zale sp. 1 near lunifera*	Special Concern
Pine Barrens Zanclognatha	*Zanclognatha martha*	Threatened
Pink Sallow	*Psectraglaea carnosa*	Special Concern
Pitcher Plant Borer Moth	*Papaipema appassionata*	Threatened
Purple Tiger Beetle	*Cicindela purpurea*	Special Concern
Sensitive Rare Invertebrate		
Slender Clearwing Sphinx Moth	*Hemaris gracilis*	Special Concern

Spartina Borer Moth	*Spartiniphaga inops*	Special Concern
Spiny Oakworm	*Anisota stigma*	Special Concern
Unexpected Cycnia	*Cycnia inopinatus*	Threatened
Water-Willow Stem Borer	*Papaipema sulphurata*	Threatened
Waxed Sallow Moth	*Chaetaglaea cerata*	Special Concern

Vertebrates

Common Name	Scientific Name	Status
Eastern Box Turtle	*Terrapene carolina*	Special Concern
Grasshopper Sparrow	*Ammodramus savannarum*	Threatened
Grassland Bird Habitat		----------
Northern Red-bellied Cooter	*Pseudemys rubriventris*	Endangered
Pine Barrens Bird Habitat		----------
Spotted Turtle	*Clemmys guttata*	Special Concern

Core Habitat BM1239

Plants

Common Name	Scientific Name	Status
Small Site for Rare Plant		

Core Habitat BM1254

Plants

Common Name	Scientific Name	Status
Small Site for Rare Plant		

Core Habitat BM1258

Plants

Common Name	Scientific Name	Status
Small Site for Rare Plant		

BioMap: Species and Natural Communities

Wareham

Core Habitat BM1259

Invertebrates

Common Name	Scientific Name	Status
New England Bluet	*Enallagma laterale*	Special Concern

Core Habitat BM1260

Natural Communities

Common Name	Scientific Name	Status
Estuarine Intertidal: Freshwater Tidal Marsh		Critically Imperiled

Plants

Common Name	Scientific Name	Status
Estuary Pipewort	*Eriocaulon parkeri*	Endangered
Long's Bitter-Cress	*Cardamine longii*	Endangered
Pygmyweed	*Crassula aquatica*	Threatened
River Arrowhead	*Sagittaria subulata var subulata*	Endangered

Core Habitat BM1261

Plants

Common Name	Scientific Name	Status
Small Site for Rare Plant		

Core Habitat BM1267

Plants

Common Name	Scientific Name	Status
Small Site for Rare Plant		

Core Habitat BM1280

Plants

Common Name	Scientific Name	Status
Bristly Foxtail	*Setaria parviflora*	Special Concern
New England Blazing Star	*Liatris scariosa var. novae-angliae*	Special Concern

Vertebrates

Common Name	Scientific Name	Status
Diamondback Terrapin	*Malaclemys terrapin*	Threatened

Core Habitat BM1282

Natural Communities

Common Name	Scientific Name	Status
Estuarine Intertidal: Brackish Tidal Marsh		Critically Imperiled

Plants

Common Name	Scientific Name	Status
Small Site for Rare Plant		

Core Habitat BM1290

Plants

Common Name	Scientific Name	Status
Small Site for Rare Plant		

Core Habitat BM1298

Vertebrates

Common Name	Scientific Name	Status
Piping Plover	*Charadrius melodus*	Threatened

BioMap: Core Habitat Summaries

Wareham

Core Habitat BM1190

This Core Habitat, centered on Myles Standish State Forest, contains the largest contiguous area of the globally significant Pitch Pine-Scrub Oak natural community remaining in the Northeast. This and other natural communities within the Core Habitat support a diversity of rare plants and animals, including no fewer than 33 rare invertebrate species of moths, butterflies, dragonflies, damselflies, and tiger beetles, as well as several globally rare plants adapted to Coastal Plain pondshores. The Core Habitat supports rare birds, salamanders, and turtles, including state's largest known population of the Northern Red-bellied Cooter turtle. The size and quality of this Core Habitat make it the best hope for the long-term survival of rare pine barrens species in New England. Although anchored by the large Myles Standish State Forest, the majority of this Core Habitat remains unprotected.

Natural Communities

This large Core Habitat contains the globally significant Pitch Pine-Scrub Oak community centered in Myles Standish State Forest. At almost 17,000 acres, this is the largest of its kind remaining in the Northeast. Pitch Pine-Scrub Oak communities are globally rare, fire dependant, shrub-dominated communities with scattered to dense trees. They provide habitat for many rare species, and develop on dry, poor soils, usually made up primarily of sand. This Core Habitat includes many other, smaller, rare community types within the predominant Pitch Pine-Scrub Oak community, including 15 acres of Scrub Oak Shrublands and 50 acres of Sandplain Heathlands in various-sized frost pockets and openings. This entire complex of natural communities is fire dependent and supports many fire-adapted species. Also, over two dozen Coastal Plain Pondshore communities of various sizes and quality are scattered throughout the Core Habitat. All of these natural communities are associated with state-listed plant and animal species.

Plants

This Core Habitat is rich in rare plant species adapted to the shorelines of Coastal Plain ponds. Two of the most viable populations in the state of the globally rare New England Boneset are found along pondshores in this Core Habitat, as are five outstanding populations of Terete Arrowhead (Species of Special Concern). Several rare and interesting members of the sedge family are found here, including four species of rare beak-sedges, one Endangered sedge species, and an uncommon nut-rush. The beautiful Plymouth Gentian, while abundant in this Core Habitat area, is a rare species globally.

Invertebrates

This area is Core Habitat for no fewer than 33 invertebrate species that are listed as Endangered, Threatened, or Species of Special Concern in Massachusetts, including 27 species of moths and butterflies, four species of dragonflies and damselflies, and two species of tiger beetles. Three of these species are found nowhere else in Massachusetts, and many of them have their largest and most viable populations within this Core Habitat. Besides barrens species such as the Persius Duskywing butterfly, Melsheimer's Sack Bearer moth, and the Barrens Daggermoth, this Core Habitat includes many other habitats for rare invertebrates, including heathlands inhabited by species such as the Slender Clearwing Sphinx moth and the Pink Sallow moth; acidic shrub swamps and bogs that are habitat for the Pale Green Pinion moth, the Coastal Swamp Metarranthis moth, and the Water-willow Stem Borer moth; and Coastal Plain ponds inhabited by the Comet Darner dragonfly and the Pine Barrens Bluet damselfly.

Vertebrates

This Core Habitat encompasses Myles Standish State Forest and over nine square miles of uplands, wetlands, ponds, and cranberry bogs. The area contains habitat for the largest known population of the Northern Red-bellied Cooter turtle (formerly known as the Plymouth Red-bellied Turtle) in the state. Given the large size of the Core Habitat, it also may be one of the most important areas for the Eastern Box Turtle in the state, and it contains habitat for Spotted Turtles, and likely Four-toed and Blue-spotted Salamanders. It also contains some of the largest areas of pitch pine - scrub oak bird habitat remaining in New England. The managed grasslands at Plymouth Municipal Airport provide habitat for Grasshopper Sparrows and other grassland birds. Annual or bi-annual mowing is needed to maintain grassland habitat at the airport, with minimal mowing between May 1 and July 31 to reduce the mortality of eggs and chicks.

Core Habitat BM1259

Invertebrates

The boggy shoreline of Dicks Pond in Wareham is habitat for the New England Bluet damselfly. The Core Habitat is surrounded by development, but is located just to the south of Spectacle Pond in Hanson and the population of New England Bluets at Goat Pasture Pond in Bourne, which may allow for dispersal of individuals between these locations. This Core Habitat appears to be unprotected.

Core Habitat BM1260

Natural Communities

This Core Habitat contains a moderate-sized Freshwater Tidal Marsh. The Freshwater Tidal Marsh community occurs along coastal rivers, upstream of brackish tidal marsh. The marshes are flooded by tidal action twice a day, but with fresh water. These structurally diverse marshes are globally rare. This marsh is in good condition despite having little buffering by naturally vegetated land.

Plants

This Core Habitat contains several rare plant species adapted to fresh-to-brackish areas near tidal river shores. Massachusetts' most viable population of the Endangered and globally rare Estuary Pipewort is found within this area, as is one of only two known populations of the Endangered River Arrowhead in the state.

Core Habitat BM1280

Plants

A healthy population of the coastal Bristly Foxtail (Species of Special Concern) is found along the dunes that border salt marshes here. The New England Blazing Star (Species of Special Concern), a species which was historically much more abundant in the state, can still be found growing within this Core Habitat.

Vertebrates

This Core Habitat contains estuarine, salt marsh, tidal creek, beach, and dune areas that support Diamondback Terrapins. Scattered rocks offer basking habitat. Residential development may increase mortality of this species from vehicles and the degradation of foraging and nesting habitat. At Little Harbor, invasive plants and human use of beaches may threaten the Diamondback Terrapins' nesting habitat. Little of this Core Habitat is protected as conservation land.

Core Habitat BM1282

Natural Communities

This relatively small Estuarine Intertidal Brackish Tidal Marsh is associated with an unusual diversity of nearby estuarine natural communities including a Sea Level Fen, Tidal Shrubland, Rocky Shore, and Mudflat. The Brackish Tidal Marsh community is often found in the brackish stretches of coastal rivers, and consists of mixed herbaceous vegetation that is flooded by daily tides. The community is structurally diverse, including high marsh and low marsh. Here the community remains of good quality although somewhat altered by impoundment.

Core Habitat BM1298

Vertebrates

This Core Habitat supports breeding Piping Plovers. Potential threats to nesting coastal waterbirds include habitat alteration and loss, human disturbance, and predation. Annual protection from these threats is needed.

Living Waters: Species and Habitats

Wareham

Core Habitat LW143

Exemplary Habitats

Common Name	Scientific Name	Status
Fish Habitat		----------

Core Habitat LW332

Exemplary Habitats

Common Name	Scientific Name	Status
Fish Habitat		----------

Plants

Common Name	Scientific Name	Status
American Waterwort	*Elatine americana*	Endangered

Living Waters: Core Habitat Summaries

Wareham

Core Habitat LW143

This section of Red Brook provides habitat for salter (sea-running) Brook Trout and American Eels. This brook is also spawning (breeding) habitat for Blueback Herring, which migrates from coastal waters to moderately flowing freshwaters with rocky substrates for spawning. Alewife also uses this stream as they pass through on the way to their upstream lake spawning habitats. These migrating fish species are important components of Massachusetts' aquatic biodiversity.

Core Habitat LW332

A population of the Endangered American Waterwort, a small and inconspicuous plant of shallow waters, grows along the shores of the Agawam River. This disjunct Core Habitat also supports one of the most diverse anadromous fish runs in the Buzzards Bay Watershed. Anadromous fishes are those that migrate from coastal waters into fresh waters to spawn (breed). The most downstream site is a spawning area for American Shad, Rainbow Smelt, and White Perch. Upstream, Glen Charlie Pond supports Alewife spawning. These migrating fish species are important components of Massachusetts' aquatic biodiversity. Protecting the surrounding undeveloped riparian areas and controlling sediment runoff from developed areas will help maintain these key freshwater habitats.

Help Save Endangered Wildlife!

Please contribute on your Massachusetts income tax form or directly to the

Natural Heritage &
Endangered Species Fund

To learn more about the Natural Heritage & Endangered Species Program and the Commonwealth's rare species, visit our web site at: www.nhesp.org.